2.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
BIOLOGICAL RESOURCES—Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

2.4.1 Setting

Regional

The Proposed Project is located in southern Sonoma County and is regionally located within the greater San Francisco Bay Area (Bay Area). The Bay Area is located in the Coast Range of the California Floristic Province. Vegetation in this region is influenced by Mediterranean climate and coastal weather patterns (e.g., fog and on-shore flow) with cool wet winters and hot dry summers. The vegetation communities in the area are characterized by redwood forest, riparian and oak woodland and forests, as well as native and non-native grassland. Freshwater and seasonal wetland communities are located along drainages and within grassland habitats and topographic low points.

In the vicinity of the project area, vegetation communities consist of annual grasslands, oak woodland and forest, and a mixture of freshwater and alkali wetlands in areas that are seasonally

or perennially inundated. Surrounding land uses include agriculture, including vineyard production, residential development, and rural residential.

Local Setting

The project region includes southeastern Petaluma, the southern end of the Sonoma Mountains and part of the southern Sonoma Valley. The proposed transmission alignment begins in southeastern Petaluma at the Lakeville Substation and traverses east over Sonoma Mountain and terminates at the Sonoma Substation in the Sonoma Valley. Lowest elevation is 54 feet mean sea level at the Sonoma Substation and the highest elevation is 712 feet mean seal level at the top of the Sonoma Mountain.

The predominant vegetation and land cover types in this region are grasslands, pasturelands, oak woodlands, vineyards, and riparian forests. The lower slopes of Sonoma Mountain and the flat valley lands are dominated by grazed grasslands, pasturelands, and vineyards. Major drainages located within the project area include Sonoma Creek on the eastern side of Sonoma Mountain. Rodgers Creek, Felder Creek, and Carriger Creek, are tributary drainages to Sonoma Creek. On the western side of Sonoma Mountain are unnamed USGS “blue line” tributaries to the Petaluma River. Both Sonoma Creek and the Petaluma River are tributaries to San Pablo Bay.

Land use within the project area varies from rural housing and agricultural lands to relatively undisturbed areas on Sonoma Mountain.

Vegetation Communities and Wildlife Habitats

Vegetation communities are assemblages of plant species that occur together in the same area and are defined by species composition and relative abundance. *A Manual of California Flora* (Sawyer and Keeler-Wolfe, 1995) was used to classify the vegetation communities or “series” in the project corridor to the extent feasible. Several vegetation communities found within the project area do not fit into the classification system developed by Sawyer and Keeler-Wolfe. Vegetation series generally correlate with wildlife habitat types and were classified and evaluated using the California Department of Fish and Game’s (CDFG) *A Guide to Wildlife Habitats of California* (Mayer and Landenslayer, 1988).

Vegetation communities along the proposed transmission line vary from intact natural communities to disturbed non-native species within agricultural areas. Disturbed lands within the project area have been subject to grazing or vineyard agriculture and occur mostly on the lower foothills and valley floors on the western and eastern side of Sonoma Mountain. Dense vegetation occurs on the upper foothills and on Sonoma Mountain.

The vegetation in the area of the Sonoma Substation consists of ornamental landscaping of small trees and shrubs along the perimeter of the substation boundary. The vegetation in the area of the Lakeville Substation consists of non-native weedy grasses and forbs characteristic of ruderal areas.

California Annual Grassland

California annual grassland is a common vegetation community in Sonoma County and in Petaluma and Sonoma Valley. It is found in the surrounding hillsides along with oak woodlands and is often found in areas that have been grazed or otherwise converted to agriculture. This community occurs throughout the project corridor, varying from disturbed ruderal vegetation in lowland areas to relatively intact communities in the upper foothills of Sonoma Mountain. The most common species found in this community include wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), yellow star thistle (*Centaurea solstitialis*), fescue (*Vulpia myuros*), filaree (*Erodium* sp.), and mustards (*Brassica* and *Hirschfeldia* sp.). Native wildflowers may also occur within the annual grassland community and these species may include fiddleneck (*Amsinckia* ssp.), lupine (*Lupinus* ssp.), popcorn flower (*Plagiobothrys* ssp.), and California poppy (*Eschscholzia californica*).

The non-native grasslands in the project area have a long history of livestock grazing, The currently ungrazed grasslands are dominated by introduced annual grasses such as slender wild oat (*Avena barbata*), brome grasses, Mediterranean barley, and other barleys (*Hordeum* spp.), Italian ryegrass (*Lolium multiflorum*), introduced weedy forbs such as Italian thistle, milk thistle and yellow and purple starthistles, and native forbs such as tarweeds (*Hemizonia congesta*, *H. fitchii*), and summer lupine (*Lupinus formosus*). Coyote brush (*Baccharis pilularis*) is sometimes present in these sites in small patches.

Annual grasslands in general support a small diversity of wildlife, but the adjacent riparian and oak woodland communities greatly enhance the wildlife habitat elements of the grassland in the project area. The habitats adjacent to the grasslands in the project area provide breeding, nesting, and refugia for species utilizing the grassland habitat. Small mammals such as the western harvest mouse (*Reithrodontomys megalotis*) and deer mouse (*Peromyscus maniculatus*) use this community for nesting and foraging. Amphibians in this community include western toad (*Bufo boreas*), Pacific tree frog (*Hyla regilla*), and California slender salamander (*Batrachoseps attenuats*). Reptiles typically found in grassland habitats include western fence lizard (*Sceloporus occidentals*), western skink (*Eumeces skiltonianus*), gopher snake, and western rattlesnake (*Crotalus viridus*). Common birds that use grasslands for nesting and foraging materials include western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), and song sparrow (*Melospiza melodia*).

Coast Live Oak Series

The Coast Live Oak Series is widespread within the project area, where it is found mainly on ridges and slopes with a northern or eastern exposure, and on some upper slopes of Sonoma Mountain. Coast live oak habitat is typically found on higher slopes and ridgetops where soils are well-drained. The dominant tree species is coast live oak (*Quercus agrifolia*) with other oak species, including Oregon oak (*Quercus garryana*.) and blue oak (*Quercus douglasii*) typically occurring as sub-dominants. Other tree species typically found within this community include California bay laurel (*Umbellularia californica*), and California buckeye (*Aesculus californica*). The understory in oak woodlands can be native grasslands or it can be dominated by introduced

weedy annual grasses, or weedy annual forbs such as Italian thistle (*Carduus pycnocephalus*) and milk thistle (*Silybum marianum*). Within the project area, weedy understory is observed primarily in areas currently used for livestock grazing.

Oak woodlands and savannahs provide important nesting and perching habitat for raptors and other birds, an abundant food source in acorns, and cover for larger mammals. Common birds and mammals that utilize this habitat type include red-shouldered hawk (*Buteo lineatus*), California quail (*Callipepla californica*), nuthatches (*Sitta* spp.), western scrub jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), gray squirrel (*Sciuris griseus*), and mule deer (*Odocoileus hemionus*). Leaf litter deposited below the trees creates microhabitats for a number of small vertebrates including newts (*Taricha* spp.), western fence lizard (*Sceloporus occidentalis*), and rodents such as deer mouse (*Peromyscus maniculatus*).

Redwood Series

The Redwood Series is dominated by coast redwood (*Sequoia sempervirens*) and occurs more or less continuously along the coast from the Oregon border to the southern end of Monterey County (Holland, 1986). Redwood forest can occur on all slope aspects, from alluvial stream terraces to steep slopes subject to erosion. Redwoods in the project area are found on shallow soils with sufficient soil moisture to support this species. Other species typically found in this community include Douglas fir (*Pseudotsuga menziesii*) and madrone (*Arbutus* spp). This community produces a shaded understory that supports patches of sword fern (*Polystichum munitum*) and shade-tolerant native annual and perennial forbs.

Riparian Forest

Riparian forest is the predominant vegetation occurring at the margins of Sonoma Creek and other drainages throughout the project area. Riparian forest within the project area consists mainly of two subtypes, Mixed Riparian Forest and Oak-Bay Riparian Forest. The Mixed Riparian Forest subtype occurs along lower gradient, usually perennial streams, and consists of a mixture of deciduous and evergreen tree species, none of which dominates by area. Mixed Riparian Forest also occurs along intermittent streams with well developed beds and banks. Typical species include: coast live oak, valley oak (*Quercus lobata*), California buckeye (*Aesculus californicus*), Fremont cottonwood (*Populus fremontii*), Oregon ash (*Fraxinus latifolia*), California bay, white alder (*Alnus rhombifolia*), red willow (*Salix laevigata*), and walnuts (*Juglans hindsii* and others). The native understory often includes California wild grape (*Vitis californica*), poison oak (*Toxicodendron diversilobum*) and Himalayan blackberry (*Rubus discolor*). Riparian Forest is found at the Rodgers Creek and Carriger Creek in Segment 1 and the Sonoma Creek crossing in Segment 17.

Riparian woodlands (including mixed riparian and oak-bay riparian forest) habitats provide food, water, migration and dispersal corridors, breeding sites, and thermal cover for wildlife and can support many resident and migratory wildlife species (CDFG, 1999). Wooded stream edges serve as nesting sites and provide escape habitat for many species. Birds found in this community are those that forage for insects in riparian areas and include Bewick's wren (*Thryomanes bewickii*),

black phoebe (*Sayornis nigricans*), and black-headed grosbeak (*Pheuticus melanocephalus*). Bark-insect foraging birds also occur in this habitat and include acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttalli*), and white-breasted nuthatch (*Sitta canadensis*). Other bird species typically observed in riparian woodland habitats include dark-eyed junco (*Junco hyemalis*), bushtit (*Psaltriparus minimus*), oak titmouse (*Baeolophus inornatus*), chestnut-backed chickadee (*Poecile rufescens*), and brown creeper (*Certhia americana*).

Riparian woodlands also provide habitat for reptiles and amphibians including the western toad, California newt (*Taricha torosa*), Pacific tree frog (*Hyla regilla*), and Pacific slender salamander (*Batrachoseps pacificus*). Small mammals such as the western harvest mouse, deer mouse, western gray squirrel (*Sciurus griseus*), Virginia opossum (*Didelphis marsupialis*), and raccoon (*Procyon lotor*), utilize these habits for nesting and foraging. Small rodents attract raptors such as red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk (*Buteo jamaicensis*).

Bulrush-Cattail Series

Bulrush (*Scirpus* ssp.) and cattails (*Typha latifolia* and *T. angustifolia*) are found in areas that are wet year-round and typically in ponds (natural or human made), shallow edges of lakes, pools, stockponds, and in seasonal drainages and riparian areas. In the project area this community is found within larger in-stream pools in Sonoma Creek and tributaries and in stock ponds and detention basins within vineyard areas. This vegetation community is found in artificial ponds and small reservoirs used mainly for vineyard irrigation. Several reservoirs are located in Segment 1(GANDA, 2004a).

Wildlife species that typically use this community include Pacific tree frog, California red-legged frog (*Rana aurora draytonii*), and western pond turtle (*Clemmys marmorata*) depending on the depth of the aquatic feature. Common bird species using this community include marsh wren (*Cistothorus palustris*), common yellowthroat (*Geothlypis trichas*), and red-winged blackbird (*Agelaius phoeniceus*). Mammals may use these aquatic features for water or forage.

Seasonal Wetlands

Seasonal freshwater wetlands may occur in topographical low-points where water is allowed to saturate or inundate for long periods of time and hydrophytic vegetation is able to establish seasonally. These seasonal wetlands are typically annual in nature and are colonized by opportunistic vegetation such as rabbit-foot's grass (*Polypogon monospliensis*), toad rush (*Juncus bufonius*), and Italian ryegrass (*Lolium multiflorum*). These features may not be evident by late spring or early summer and may not persist from year to year, depending on climatic conditions.

Vernal Pools

Vernal pools are seasonal wetlands that occur in grasslands and are typically located in slight depressions that form over bedrock or hardpan soils that allow water to pool during winter and spring rains. Vernal pools within the project area are a northern California type that does not completely fit within any of the subcategories of Northern Vernal Pools described by Holland

(1986) or Sawyer and Keeler-Wolf (1995). As with all vernal pools, they occupy shallow depressions that hold water during the rainy season due to a clay or hardpan substrate that impedes water percolation.

Although vernal pools occur naturally in grassland and woodland settings, they may also occupy disturbed locations where the underlying soil conditions remain intact. Vernal pools are considered unique habitat and often support species that are endemic to vernal pools or other shallow pools in that particular geographic region. Vernal pool communities have been greatly reduced due to conversion of grasslands to agriculture or urban development.

Vernal pool vegetation found in the project area includes goldfields (*Lasthenia* spp.), downingias (*Downingia* spp.), popcorn flowers (*Plagiobothrys* spp.), meadowfoams (*Limnanthes* spp.), and button-celeries (*Eryngium* spp.). One large vernal pool was found in the project area along Segment 1 between, and just to the south of Poles 43 and 44. This vernal pool contained bracted popcorn flower (*Plagiobothrys bracteatus*), Jepson's button-celery (*Eryngium aristulatum*), flowering quillwort (*Lilaea scilloides*), and the special-status plant Lobb's aquatic buttercup (*Ranunculus lobbii*).

Vernal marshes are described by Holland (1986) as wetlands somewhat similar to vernal pools in species composition. They differ in hydrology, with vernal marshes retaining some standing water well into the summer and often throughout the year. The central area, with deeper water, often supports plants characteristic of freshwater marshes, while the gradually sloping shoreline, which dries completely during the summer, supports vernal pool species.

One vernal marsh is located adjacent to the Segment 1 survey corridor, on the upper west-facing slope of Sonoma Mountain, just west of the route's intersection with Rodgers Creek. This wetland appears to have been formed from a natural vernal pool whose size was enhanced by the construction of a low berm along the eastern edge of the wetland. Common species identified on the shores of this vernal marsh during field surveys include: Jepson's button-celery, flowering quillwort, bracted popcorn flower, and pygmy-weed (*Crassula aquatica*). Common tule (*Scirpus acutus*), lance-leaved water plantain (*Alisma lanceolatum*), and floating pondweed (*Potamogeton* sp.), species characteristic of freshwater marshes, were common in the permanent standing water of this vernal marsh.

Vernal pools and other seasonal wetlands support a unique assemblage of species adapted to the seasonal regime of inundation and desiccation. Species composition depends in part on the period of inundation during the wet season. When filled or saturated, these habitats support a variety of aquatic invertebrates and provide breeding sites for amphibians such as Pacific tree frog and western toad. In winter and spring, seasonal wetlands also provide foraging habitat for resident and migratory birds such as killdeer (*Charadrius vociferus*), snowy egret (*Egretta thula*), and greater yellowlegs (*Tringa melanoleuca*). Because they are often isolated from other water bodies and provide unique habitat conditions, vernal pools and other seasonal wetlands can be essential habitats for locally endemic and rare species.

Seasonal wetlands, including vernal pools, provide a high diversity of habitat. They provide forage, cover, and water for a diversity of wildlife and are essential habitats for amphibians and reptiles such as Pacific tree frog and garter snakes (*Thamnophis* spp.). Common birds found in these habitats include water birds such as American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), and cinnamon teal (*Anas cyanoptera*), wading birds such as great blue heron (*Ardea erodias*) and great egret (*Ardea alba*), and songbirds such as red-winged blackbird (*Agelaius phoeniceus*).

Vineyards and Other Agricultural Lands

Vineyards of wine grapes are common within the project area, occurring within or adjacent to the transmission line. Native plants sometimes persist within vineyards. In the flatlands of the Santa Rosa Plain in Sonoma County, special-status plants have occasionally been found within vineyards that contain seasonal wetlands and are not extensively tilled. The vineyards within the project area occur on slopes and on flatlands on both the eastern and western sides of Sonoma Mountain.

Vineyards and other row crops are generally planted in areas that once supported productive and diverse biological communities. The conversion of native vegetation to cultivated crops has greatly reduced the wildlife species diversity and habitat value. However, some common and agricultural "pest" species forage in vineyard habitats, and cultivated vegetation can provide benefits such as cover, shade and moisture for these and other species during hot summer months. Typical species found in vineyards include red-tailed hawk, common crow (*Corvus brachyrhynchos*), Brewer's blackbird, house finch (*Carpodacus mexicanus*), California ground squirrel, and western harvest mouse (*Reithrodontomys megalotis*).

Aquatic Resources

Aquatic resources in the project area include perennial creeks, ephemeral creeks, and artificial ponds located in agricultural areas. The quality of the aquatic habitat in the proposed project corridor varies considerably, depending on the degree of disturbance from current and past land use. On the western side of Sonoma Mountain, there are three blue line streams that are tributaries to the Petaluma River. A large artificial pond, formed by an earthen dam in one of these drainages is located just east of Pole 25. A smaller, rectangular stock pond is located immediately north of the line between Pole 36 and Pole 37.

On the eastern side of Sonoma Mountain, there are several perennial and intermittent creeks along the transmission line including Rodgers Creek, Felder Creek, and Carriger Creek, that are all tributaries to Sonoma Creek. Large portions of the proposed transmission line either cross, span, or parallel these drainages.

Perennial and ephemeral streams provide habitat for a variety of aquatic invertebrates, including California freshwater shrimp (*Syncaris pacifica*), and fish species such as California roach (*Lavinia symmetricus*), steelhead (*Oncorhynchus mykiss*), and sunfish (*Lepomis* spp.). These features also provide aquatic and breeding habitat for amphibians and reptiles such as garter

snakes and western pond turtle (*Clemmys marmorata*). Ponds in the project may contain introduced fish such as mosquitofish (*Gambusia* sp.) and sunfish, bullfrogs (*Rana catesbiana*), and native Pacific tree frogs and pond turtles.

Agricultural stock and detention ponds occur within the vineyard areas and in other areas used for cattle grazing. These ponds are mostly open water areas but can contain some vegetation typically found in freshwater wetlands such as common cattail and bulrush. These ponds provide aquatic breeding habitat for common amphibians such as the Pacific tree frog and western toad and the non-native bullfrog. These ponds also provide suitable habitat for western pond turtles and waterfowl species such as mallard (*Anus platyrhynchos*), Canada goose (*Branta canadensis*). The shorelines of these ponds also provide suitable habitat for wading birds including snowy egret (*Egretta thula*), lesser yellow legs (*Totanus flavipes*), and great egret (*Ardea alba*).

Jurisdictional Waters of the U.S., including Wetlands

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. They are recognized as important natural systems because of their value to fish and wildlife, and their functions as storage areas for flood flows, groundwater recharge, nutrient recycling and water quality improvement. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to saturated soils.

Potentially jurisdictional Waters of the United States (U.S.), including wetlands may occur within the project area where topography and soils allow for frequent inundation or saturation. These potentially jurisdictional features also include channels, ditches, ponds, vernal pools, and seasonal areas that would meet criteria for wetlands. Other waters within the project area include ephemeral and perennial drainages including Sonoma Creek, Rodgers Creek, Felder Creek, and several unnamed blue line streams. Wildlife species typically found within these features include Pacific tree frog, western toad, and common garter snake as well as numerous birds species including red-winged blackbird, snowy egret, northern harrier (*Circus cyaneus*), and red-shouldered hawk.

Special-status Species

Species known to occur on or in the vicinity of the project site are accorded “special status” because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or state endangered species legislation. Others have been designated as “sensitive” on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as “special status species” in this Initial Study, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed in the Regulatory Context section of this chapter.

Special-status plant and wildlife species with potential to occur in the project area are discussed in the following sections.

A list of special status plant and animal species reported to occur within the vicinity of the project site was compiled on the basis of data in the California Natural Diversity Database (CNDDB, 2004), consultation with the California Department of Fish and Game (CDFG), California Native Plant Society (CNPS) literature (Skinner and Pavlik, 1998), consultation with the U.S. Fish and Wildlife Service (USFWS), and biological literature of the region. The list is intended to be comprehensive and the "Potential for Occurrence" designations (**Table 2.4-1**) apply to species and their habitats in close proximity to the proposed project boundary and facilities but not necessarily impacted by the project. Special-status species with the potential for occurrence within the project area are described below.

Special Status Plants

Protocol-level rare plant surveys were conducted by Garcia and Associates (GANDA) in March through June 2003 (see **Appendix C**). The purpose of these surveys was to locate all populations of special-status plants within the project area, to precisely record and map their locations using GPS technology, and to estimate the size, number of individuals, phenology, and microhabitat characteristics of each rare plant population. Protocol-level surveys were floristic in nature and were conducted according to the rare plant survey guidelines approved by the California Native Plant Society (CNPS) (Tibor, 2001), CDFG (2000), and USFWS (1996a). Results of these surveys indicate the presence of two special status species: cotula navarretia and Lobb's buttercup.

Cotula navarretia (Navarretia cotulifolia) – CNPS 4

Cotula navarretia is an annual forb with cream-colored flowers in the Polemoniaceae (Phlox Family). It is found in chaparral, cismontane woodlands, and especially in moist grasslands, sometimes with serpentine influence, from San Benito County to Mendocino, Colusa and Butte counties (Tibor, 2001). The CNPS Inventory (Tibor, 2001) places cotula navarretia on List 4.

One population of cotula navarretia was found on the lower east-facing slope of Sonoma Mountain, in grazed Non-native Grassland with adobe soil between Poles 58 and 59. Approximately 20,000 individuals were found within the 200 foot-wide survey corridor in June 2003. In June 2004 the survey area was expanded to include the entire small valley in the vicinity of Poles 57 to 60. The cotula navarretia population was found to extend to the north and south beyond the original survey corridor within the project area. All the plants observed were located north of the ephemeral drainage that flows northwest to southeast in the valley bottom, and northwest of the fence line that runs along the southwest margin of the valley. In June 2004 the estimated size of the entire population of cotula navarretia was approximately 40,000 individuals.

Lobb's aquatic buttercup (*Ranunculus lobbii*) – CNPS 4

Lobb's aquatic buttercup is an aquatic annual herb in the Buttercup Family (*Ranunculaceae*) with floating and submerged leaves, and small, white, floating flowers. Lobb's aquatic buttercup is

TABLE 2.4-1
SPECIAL STATUS SPECIES REPORTED OR POTENTIALLY OCCURRING IN THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/ CNPS	General Habitat	Flowering Period	Potential for Occurrence
Plants				
Napa False Indigo (*Amphora californica* var. *napensis*)	FSC/--/1B	Broadleafed upland forest, chaparral, cismontane woodland.	April-July	**Low potential**: No suitable habitat occurs within project area. Closest known location is in Sonoma at Norrbom Road, approximately 2 miles northeast of the project area.
Alkaki milk vetch (*Astragalus tener* var. *tener*)	FSC/--/1b	Alkali playas and vernal pools in valley foothills and grasslands	March-June	**Low potential:** No suitable habitat occurs on project site. Species known from a single collection in 1880 (CNDDB, 2004).
Narrow-anthered California brodiea (*Brodiaea californica* var. *leptandra*)	FSC/--/1B	Broadleafed upland forest, chaparral, lower montane coniferous forest	May-July	**Low potential**: No suitable habitat occurs within the project area. No CNDDB occurrences reported within project area.
Yellow larkspur (*Delphinium larkspur*)	FE/CR/1B	Chaparral, coastal prairie, and coastal scrub. Endemic to a few occurrences in Sonoma County	March-May	**Low potential:** No suitable habitat occurs within the project area. No CNDDB occurrences reported within project area.
Sonoma sunshine (*Blennosperma bakerii*)	FE/SE/1B	Endemic to Sonoma County. Found in vernal pools and valley and foothill grasslands.	March-May	**Moderate potential:** CNDDB lists several known occurrences within 5 miles of project site. Special-status plant surveys did not reveal this species within the project area (GANDA, 2004a)
Sonoma Ceanothus (*Ceanothus sonomensis*)	FSC/--/1B	Endemic to Napa and Sonoma Counties. Chaparral, including sandy and serpentine or volcanic soils	February-April	**Low potential**: No suitable habitat occurs within the project area. No CNDDB occurrences reported within project area.
Sonoma spineflower (*Chorizanthe valida*)	FE/SE/1B	Known only from Marin and Sonoma Counties although thought to be extinct in Sonoma County. Habitat is coastal prairie on sandy soils	June-August	**Low potential:** No suitable habitat occurs within the project area. No CNDDB occurrences reported within project area.

TABLE 2.4-1 (continued)
SPECIAL STATUS SPECIES REPORTED OR POTENTIALLY OCCURRING IN THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/ CNPS	General Habitat	Flowering Period	Potential for Occurrence
Dwarf downingia *Downingia pusilla*	--/--/2	Vernal pools in valley and foothill grasslands.	March-May	**Moderate potential**: Suitable habitat occurs on project site. However, special-status plant surveys did not reveal this species within the project area (GANDA, 2004a). Closest known occurrence is at Sonoma Valley Regional Park, approximately 5 miles north of project site (CNDDB, 2004).
Round-leaved filaree (*Erodium macrophyllum*)	--/--/2	Valley and foothill grassland. Cismontane woodland.	March-May	**Low potential:** Suitable habitat occurs on the project site. However, special-status plant surveys did not reveal this species within the project area (GANDA, 2004a)
Lobb's aquatic buttercup (*Ranunculus lobbii*)	--/--/4	Vernal pools and seasonal wetlands within valley and foothill grasslands	February-May	**Present:** This species was identified during focused special-status plant surveys (GANDA, 2004a)
Cotula navarretia (*Navarretia cotulifolia*)	--/--/4	Valley and foothill grasslands	April-June	**Present:** This species was identified during focused special-status plant surveys (GANDA, 2004a)
Contra Costa goldfields (*Lasthenia conjugens*)	FE/--/1B	Vernal pools and shallow depressions in valley and foothill grasslands. Thought extirpated from most of its range	March-June	**Moderate potential**: Vernal pools within the project area provide suitable habitat. However, this species was not detected during focused plant surveys

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/ CNPS	General Habitat	Localities of Occurrence Reported by CNDDB in the Project Area	Potential for Occurrence
Invertebrates				
California freshwater shrimp *Syncaris pacifica*	FE/SE	Low gradient streams with pools, undercut banks, exposed roots and with dense riparian vegetation. Found in Napa and Sonoma Counties	Less than five miles upstream of the project area near the town of Glen Ellen	**High potential.** The project area in Sonoma Creek (Poles 107 and 108) provides suitable habitat for this species.

TABLE 2.4-1 (continued)
SPECIAL STATUS SPECIES REPORTED OR POTENTIALLY OCCURRING IN THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/ CNPS	General Habitat	Localities of Occurrence Reported by CNDDB in the Project Area	Potential for Occurrence
Fish				
Steelhead-Central California Coast ESU *Oncorhynchus mykiss*	FT/-CSC	Drainages of San Francisco and San Pablo Bays. Central California coastal rivers	Adobe Creek adjacent to the Lakeville Substation but outside the project boundary.	**Low potential.** The streams and drainages within the project area do not provide suitable habitat for this species. No CNDDB reported occurrences in Sonoma, Rodgers, Carriger, or Felder Creek within the project area.
Amphibians				
California tiger salamander *Ambystoma californiense*	FT/CSC	Breeds in ephemeral ponds and pools and vernal pools, aestivates most of the year in burrows or subterranean areas	No known occurrences within project area. Closest known occurrence approximately 8 miles north in Cotati**.**	**Low potential.** Marginal habitat occurs on project site. Surveys did not reveal any occurrences of this species within the project boundary.
California red-legged frog *Rana aurora draytonii*	FT/CSC	Breeds in stock ponds, pools, and slow-moving streams with emergent vegetation for escape and egg attachment	Closest known CNDDB occurrence approximately 10 miles east at Sears Point.	**Present:** Present in the upper portion of Felder Creek.
Foothill yeloow-legged frog *Rana boylii*	--/CSC	Partly shaded streams with riffles and rocky substrate. Require at least cobble-size substrate for egg-laying	Closest known CNDDB occurrence at Adobe Creek approximately ½ mile west of the Lakeville Substation	**Moderate potential:** Suitable habitat occurs with the project area in Rodgers and Felder Creeks.
Reptiles				
Western pond turtle *Clemmys marmorata*	FSC/CSC	Requires permanent streams and creeks with sandy banks for egg laying.	Closest known CNDDB occurrence at a stock pond near the intersection of Adobe Rd. and Stage Gulch Road	**High potential.** Suitable habitat for this species is found throughout the project site.
Birds				
Cooper's hawk *Accipiter cooperii*	--/CSC	Nests in riparian growths of deciduous trees and live oak woodlands.	Not reported by CNDDB	**Low potential**. Nesting sites are available throughout the wooded riparian margins of Sonoma Creek but no known occurrences in the project area..
White-tailed kite (*Elanus leucurus*)	CDFG Fully Protected	Nests near wet meadows and open grasslands dense oak, willow or other large tree stands.	Not reported by CNDDB	**High potential**. Observed within project area during field surveys.
Golden eagle (*Aquila chrysaetos*)	--/CSC	Nests in canyons and large trees with adjacent open foraging habitats	Not reported by CNDDB	**Moderate potential.** Suitable habitat occurs within Segment 1.

TABLE 2.4-1 (continued)
SPECIAL STATUS SPECIES REPORTED OR POTENTIALLY OCCURRING IN THE PROJECT AREA

Common Name *Scientific Name*	Listing Status USFWS/ CDFG/ CNPS	General Habitat	Localities of Occurrence Reported by CNDDB in the Project Area	Potential for Occurrence
California horned lark *Eremophila alpestris actia*	--/CSC	Nests and forages in short-grass prairie, mountain meadow, coastal plain, fallow fields, and alkali flats	Not reported by CNDDB	**High potential.** Suitable habitat occurs in the grasslands within Segment 1. Species observed during field surveys (GANDA, 2004a)
Loggerhead shrike *Lanius ludovicianus*	FSC/CSC	Scrub, open woodlands, and grasslands.	Not reported by CNDDB	**Low potential**. The project area provides foraging and marginal nesting habitat in surrounding grasslands. No known occurrences within the project area.
Burrowing owl *Athene cunicularia*	FSC/CSC	Nests and forages in low-growing grasslands that support burrowing mammals.	Closest known occurrence approximately 5 miles from project site Lakeville Road and Highway 37.	**Low potential**. Marginal habitat occurs along the western side of Sonoma Mountain. Surveys for this species did not reveal presence within the project area.
Mammals				
Pallid bat *Antrozous pallidus*	--/CSC	Grasslands and shrublands, woodlands and forests. Roosts in cliffs, rock faces, and bridges. Forages in open areas such as grasslands	CNNDB reports known occurrences on Watmaugh Bridge over Sonoma Creek approximately less than one mile downstream of the project area.	**Moderate potential.** The bridge at Leveroni Road provides suitable habitat for this species. CNDDB reports no known occurrences at this location.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)
FE = Listed as Endangered (in danger of extinction) by the Federal Government.
FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.
FP = Proposed for Listing as Endangered or Threatened.
FC = Candidate to become a *proposed* species.
FSC = Federal Species of Concern. May be endangered or threatened, but not enough biological information has been gathered to support listing at this time.
FD = Delisted by the Federal Government

STATE: (California Department of Fish and Game)
CE = Listed as Endangered by the State of California
CT = Listed as Threatened by the State of California
CR = Listed as Rare by the State of California (plants only)
CSC = California Species of Special Concern
* = Special Animals
3503.5=Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls)

California Native Plant Society
List 1A=Plants presumed extinct in California
List 1B=Plants rare, threatened, or endangered in California and elsewhere
List 2= Plants rare, threatened, or endangered in California but more common elsewhere
List 3= Plants about which more information is needed
List 4= Plants of limited distribution

endemic to vernal pools and other seasonal wetlands in coastal areas from Santa Clara County to Mendocino County and in Oregon. It is included on List 4 of the CNPS Inventory (Tibor, 2001).

One population of Lobb's aquatic buttercup is located within the project area, in a large vernal pool in grazed Non-native Grassland in Segment 1, between Poles 43 and 44 (GANDA, 2004a). This population contained an indeterminate number of individuals. The plants covered a crescent-shaped portion of the vernal pool approximately 80 feet by 20 feet in size, about one-fourth of the total area covered by the vernal pool. The pool showed substantial trampling impacts by cattle that were grazing in the area at the time of the protocol-level surveys.

Special-Status Wildlife

California Freshwater Shrimp (*Syncaris pacifica*)

This species is endemic to perennial lowland streams in Marin, Sonoma, and Napa counties. It is also found in intermittent streams with perennial pools, and prefers areas with undercut banks, exposed roots, overhanging woody debris, or overhanging vegetation. It is currently known to exist within 17 streams, all generally low-gradient streams below 400 feet elevation.

Within the project area, California freshwater shrimp has been documented throughout Sonoma Creek (Pole 107) with the closest known occurrence approximately five miles upstream from the project site near the Sonoma Developmental Center (CNDDB, 2004).

Steelhead-Central California Coast ESU (*Oncorhynchus mykiss*)

O. mykiss (Central California Coast ESU) is a federally listed threatened species. Critical habitat, which was designated for this species by the National Marine Fisheries Service (NMFS) on February 16, 2000. However, on April 30, 2002, NMFS withdrew the critical habitat designation pending further economical impact analysis (NMFS, 2002). On September 29, 2003, NMFS formally withdrew critical habitat designation for the Central California Coast ESU, as well as 18 other ESUs (final rule dated September 29, 2003, Federal Register 68: No. 188, 55900). A final rule is expected in late summer 2005 (NMFS, 2004).

O. mykiss exhibit one of the most complex life histories of any salmonid species. The resident form spends its entire life in freshwater environments, while the anadromous form migrates between their natal streams and the ocean. Migratory *O. mykiss* typically migrate to marine waters after spending one or more years in freshwater. They typically reside in marine waters two to three years before returning to their natal stream to spawn as four or five year olds. Unlike salmon, migratory *O. mykiss* are iteroparous, meaning they can spawn more than once before they die.

Migratory *O. mykiss* incubate in gravel depressions, termed "redds," made by the adult female. The egg incubation period varies based on local conditions such as water temperature and oxygen availability. Juvenile "fry" emerge from the gravel and rear in the freshwater environment for one to four years, after which they migrate to the ocean as smolts. Two reproductive forms are recognized, the "stream maturing" and "ocean maturing" forms (also termed summer-run and winter-run, respectively), which describes the level of sexual development following return to the freshwater environment.

Within the project vicinity, migratory *O. mykiss* are reported to occur in Adobe Creek, located north of the Lakeville Substation (CNDDB, 2004). Rodgers, Felder, Carriger, Fowler, and

Sonoma Creeks along Segments 1, 2 and 17 also provide suitable habitat but there are no known occurrences of this species in these drainages (CNDDB, 2004). Adults could migrate through the lower reaches of these creeks and spawn in the upper reaches mostly north of the project area. Also, *O. mykiss* have the potential to occur in Fryer Creek along Segment 17. Fryer Creek is tributary to Nathanson Creek, which is known to support this species, but their presence in Fryer Creek has not been established (GANDA, 2004b). The lower reaches of these streams that cross the project corridor generally become too warm and dry for steelhead, but some pools that remain in well-shaded locations could provide suitable rearing habitat for juveniles.

California Tiger Salamander (*Ambystoma californiense*)

Based on the results of the site assessment for California tiger salamander (CTS), nocturnal terrestrial surveys were conducted according to the CDFG protocol (1997) from December 13, 2002 to March 19, 2003. The survey area encompassed terrestrial habitat within 1,600 feet of the five aquatic sites determined during the site assessment phase to have suitable breeding habitat. Five night surveys were performed at each site, one during each of the months of December, January, and February, and two additional surveys during storm systems in February and March. Mammal burrows and other suitable underground refuges were identified in daylight and flagged prior to the night surveys. The surveys were conducted when rain had occurred during the day and continued after dark, and air temperatures ranged from 46 to 61 degrees Fahrenheit (F). Teams of two biologists conducted either randomized walk or transect surveys around suitable breeding ponds. Transects were spaced 16 to 50 feet apart, and six-volt flashlights were used to scan both sides of each transect for CTS. Mammal burrows and other suitable refuge sites were carefully inspected by looking down the tunnel as far as possible.

California tiger salamander is a federally listed threatened species and a California species of special concern. It breeds primarily from December through February and spends the majority of its adult life in subterranean refugia, such as ground squirrel burrows, in grasslands. Adult salamanders emerge for only a few weeks per year from their underground retreats near breeding areas, generally at the height of the rainy season, and move to temporary rain pools, streams, and ponds to mate and lay their eggs. During the short breeding season, salamanders can be observed moving to temporary rain pools, ponds, streams, and lakes. Habitat elements required for species presence include natural or artificial aestivation sites, such as small mammal burrows or debris piles, and suitable breeding sites, which may include ephemeral pools, ponds, or slow-moving streams.

Suitable aquatic habitat was identified at five ponds within 0.6 mile (1 km) of the project corridor, and suitable upland habitat (rodent burrows in grasslands) was observed in the vicinity of some of these ponds. No CTS were observed at or around any of these five areas visited during nocturnal surveys. This result included no sightings at entrances of burrows, under woody debris, in vegetation, or along the banks of the suitable aquatic sites. There are no California Natural Diversity Database (CNDDB) occurrences within the project area. The closest recent records of Sonoma County CTS are in southern Cotati, approximately five miles northwest of the Lakeville Substation (CNDDB, 2004). Based on the survey results and current range information, this species is not likely to occur within the project area.

California Red-legged Frog (*Rana aurora draytonii*)

Following the site assessments, protocol surveys for California red-legged frog (CRLF) were conducted according to U.S. Fish and Wildlife Service (USFWS, 1997) guidance from October 21 to 31, 2002, May 1 to June 30, 2003, October 20 to 30, 2003, and June 17 to July 20, 2004 (GANDA, 2004b). These consisted of two daytime and two nighttime surveys conducted at those sites identified in the assessment as suitable habitat for CRLF and which could be affected by the project. Protocol surveys were not performed at sites that would not be affected because of their distance from the project area or isolation by barriers such as major roads. Fifteen sites were surveyed, including eleven ponds and four creek reaches. The ponds surveyed consisted mostly of artificial stock ponds and small reservoirs. The creek reaches included upper Felder Creek and its tributary (crossed by the route between Poles 54 and 55), Felder Creek north of the route (between Poles 68 and 77), and Carriger and Sonoma Creeks upstream and downstream of the transmission line crossing. Daytime surveys were conducted by visually scanning all aquatic habitats and shoreline areas with binoculars. Nighttime surveys were conducted using binoculars and a six-volt flashlight. Both visual and auditory detection methods were used. In cases where surveyors could not see the water, the vegetation was parted where possible to uncover hidden pools. Care was used while walking in and around water bodies to avoid disturbing sediment, vegetation, and amphibian larvae. A detailed account of these surveys is provided in the CRLF survey report (GANDA, 2004b) provided as **Appendix D**.

CRLF is a federally listed threatened species and California species of special concern. Critical habitat was re-proposed on April 13, 2004 using the configuration of the previously published final designation of critical habitat for the CRLF. Moist woodlands, forest clearings, and grasslands also provide suitable habitat for this species in the nonbreeding season (Stebbins, 1985). Adult frogs seek waters with dense shoreline vegetation, such as cattails, that provide good cover (Miller et al., 1996), but may be found in unvegetated waters as well.

CRLF breed from January to May. Eggs are attached to vegetation in shallow water and are deposited in irregular clusters (Miller et al., 1996). Tadpoles grow to 3 inches before metamorphosing. CRLF are active year-long along the coast, but aestivate from late summer to early winter inland. Adults consume insects such as beetles, caterpillars, and isopods, while tadpoles forage on algae and detritus.

The project area is not within any designated or proposed critical habitat for CRLF. Critical habitat for this species was previously designated by the USFWS (2001); however, most of this designation was vacated by a U.S. District Court ruling in 2002. The USFWS (2004b) recently re-issued proposed critical habitat designations for CRLF. The closest proposed critical habitat to the project area is Unit 10, Stage Gulch and Lower Petaluma River, which extends as far north as southeastern Petaluma, approximately one mile south of the Lakeville Substation.

During CRLF habitat assessment surveys (GANDA, 2004b), suitable aquatic habitat for this species was identified at 26 sites within one mile of the proposed route. Protocol surveys were subsequently conducted at 15 of these suitable habitat sites where it was determined that CRLF individuals or their habitat could potentially be affected by project activities. CRLF adults were

found at the upper portion of Felder Creek and a small tributary to this creek in June 2004. Six adult frogs were observed at three locations along the creek and tributary and the area is likely breeding habitat for this species.

Foothill Yellow-legged Frog (*Rana boylii*)

Foothill yellow-legged frog (FYLF) occurs in the Coast Ranges, from the Oregon border south to the Transverse Mountains in Los Angeles County. This species requires shallow, flowing water and prefers small to moderate-sized streams with cobble-sized substrate (Jennings and Hayes, 1994). Females lay eggs between March and early June during periods of high stream flows. FYLF is typically found in or near streams with rocky or gravelly bottoms, shallow runs or riffles, and deep pools. This species prefers areas with mixed sun and shade and requires cobble-sized or larger substrates for egg laying (CDFG, 2002b). Smaller tributaries and ephemeral streams may be used for overwintering and for post-breeding refuge from summer heat.

There are two CNDDB records of foothill yellow-legged frogs in the vicinity of the project area. The closest record is from 1997 in Adobe Creek, approximately one mile northwest of the western end of Segment 1. Another record is from 2003 in Carriger Creek, approximately 1.7 miles north of the eastern end of Segment 1 and three miles upstream of the Carriger Creek crossing in Segment 17 (CNDDB, 2004). FYLF has moderate potential to occur in the project area in Rodgers, Felder, and Carriger Creeks along Segment 1, 2 and 17.

Western Pond Turtle (*Clemmys marmorata marmorata*)

Pond turtles require still or slow-moving temporary and permanent waters such as ponds, freshwater marshes, and pools in perennial streams. Freshwater ponds and streams, such as those found in the project area provide suitable habitat for this species. Pond turtles may remain active all year and sometimes move overland for distances of more than 300 feet to find a suitable nest site (Jennings and Hayes, 1994). They generally lay their eggs in open areas that are on dry slopes with soils rich in silt and clay.

Suitable habitat for pond turtles occurs throughout the project area and this species is presumed present in areas where suitable habitat exists. Pond turtles were observed during surveys for CRLF in 2003 in a pond west of Rodgers Creek, approximately 1,200 feet south of Pole 44, and in 2004 in a vineyard pond approximately 1,700 feet north of Pole 61(GANDA, 2004b). There are three known occurrences of this species within three miles of the project area; the nearest occurrence is 1.6 miles south of Segment 1 (CNDDB, 2004).

White-tailed Kite (*Elanus leucurus*)

White-tailed kites inhabit open lowland valleys and low, rolling foothills. They forage in grasslands, marshes, riparian edges, and cultivated fields where prey species, mainly California ground squirrels (*Spermophilus beecheyi*) and black-tailed jackrabbits (*Lepus californicus*), are relatively abundant. Suitable nesting habitat for this species is present in the grasslands and oak stands along Segment 1 and suitable foraging habitat exists throughout the project area. There are no CNDDB records for this species within the project area. However, white-tailed kites were

observed in flight over the eastern portion of Segment 1 during field surveys in July 2003 (GANDA, 2004d).

Golden Eagle (*Aquila chrysaetos*)

Golden eagles typically inhabit open mountain areas, foothills, grasslands, and other open country. They are an uncommon permanent resident and migrant species in Sonoma County and throughout most of California (CDFG, 2002b). Golden eagle nests are commonly built on cliff ledges and are also frequently found in large trees in open areas. They prey mainly on small mammals ranging in size from ground squirrels to jackrabbits (Kaufman, 1996). Within the project area, there is a moderate potential for golden eagles to occur in Segment 1. In this segment, large trees near Rodgers Creek and adjacent to expanses of grassland could provide suitable nesting sites, and grasslands throughout the area provide suitable foraging habitat. A large raptor nest consistent in size and structure to that of a golden eagle nest was observed in January 2003 in a eucalyptus stand approximately 1,100 feet south of Pole 36 (GANDA, 2004d).

California Horned Lark (*Eremophila alpestris actia*)

California horned larks occur in grasslands and other semi-open habitats that lack trees or brushy areas. They build their nests on the ground, usually near grass clumps or earth clods, and feed on seeds and insects (Kaufman, 1996). The grasslands habitat along valley bottoms and lower foothill areas provide suitable foraging and nesting habitat for this species. Horned larks were observed along Segment 1 in the vicinity of Poles 28 and 29 during a field survey in February 2004 (GANDA, 2004d).

Special-status Bats

Pallid Bat (*Antrozous pallidus*) – California Species of Special Concern

Pallid bats occur throughout California at low elevations. They can be found in a variety of habitats, including grasslands, shrublands, woodlands, and forests. They roost in deep crevices, rock faces, buildings, and under bridges and are yearlong residents in most of their range (CDFG, 2002b). According to the CNDDB, pallid bats have been reported in the project area and vicinity. Along Segment 2 at Felder Road, a pallid bat was captured and released in 2000 (CDFG, 2004). Pallid bats and an unidentified bat species were also documented (based on fecal pellets and prey remains) in 1999 approximately 0.8 miles south of the project area under the Watmaugh Road Bridge over Sonoma Creek (CDFG, 2004). Based on these observations and recent CNDDB records, there is a high potential for this species to occur in the project area along Segment 2 and a moderate potential to occur along Segments 1 and 17.

2.4.2 Regulatory Context

In general, projects approved through the California Environmental Quality Act (CEQA) process should show that new land uses are in compliance with the wetlands provisions of the federal Clean Water Act (CWA) and with state and federal endangered species acts (CESA and FESA).

A complex array of state and federal regulatory guidelines directs how the jurisdictional boundaries of wetlands are identified, defined, and regulated. The U.S. Army Corps of Engineers

(USACOE or "the Corps") is the major regulatory agency involved in wetland regulation under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Additional agencies that have jurisdiction over on-site wetlands include the U.S. Environmental Protection Agency (US EPA) (oversight authority on USACOE 404 permits), USFWS, CDFG, and the California State Water Resources Control Board (SWRCB).

CEQA directs each lead agency to consult with the CDFG on any project the agency initiates that is not statutory or categorically exempt from CEQA. CEQA Guidelines Section 15065(a) declares that impacts to rare, threatened, or endangered plants or animals are significant. The Native Plant Protection Act also affords limited protection to special status plant species. A formal consultation process must be initiated with the CDFG for projects which may or will have an adverse effect on state-listed species (i.e., listed under CESA).

Similarly, the permitting responsibilities of the USACOE include consultation with the USFWS when federally listed species (i.e., listed under FESA) are at risk. At both the state and federal levels, the process requires that a Biological Assessment (BA) be prepared to determine the effects on listed species. With both USFWS and CDFG policy, "species of special concern" are not subject to the same consultation requirements as listed endangered, rare, or threatened species, but the agencies encourage informal consultation for species of special concern that may become officially listed prior to completion of the CEQA process.

CEQA Section 15206 specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species.

Federal

Federal Regulation of Waters of the U.S., including Wetlands (Clean Water Act Sections 404 and 401)

Wetlands and nonwetland water resources (e.g., rivers, streams, and natural ponds) are a subset of "waters of the United States"[1] and receive protection under Section 404 of the Clean Water Act. The Corps is the major regulatory agency involved in wetland regulation under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Additional agencies that have jurisdiction over on-site wetlands include the US Environmental Protection Agency (oversight authority on CWA Section 404 permits), USFWS, CDFG, and the State Water Resources Control Board (SWRCB).

Through the nine Regional Water Quality Control Boards (RWQCBs), the SWRCB regulates discharge and/or fill to waters of the state under Section 401 of the federal CWA and under the California Clean Water Act (Porter-Cologne Act). The RWQCBs are authorized to ensure that actions permitted by the Corps under Section 404 also meet state water quality standards.

[1] The regulatory term "waters of the United States," as used by USACOE, has broad meaning and incorporates both deep-water aquatic habitats and special aquatic sites, including wetlands.

Under Sections 1600-1607 of the California Fish and Game Code, CDFG regulates activities that would alter the bed, channel, or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit. CDFG is also authorized to develop mitigation measures and to enter into a streambed alteration agreement with applicants that propose a project that would adversely affect a river or stream, including intermittent and ephemeral streams. The SWRCB must certify that a Corps permit action meets state water quality objectives (Section 401, CWA).

CEQA Guidelines Section 15206 specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats, including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by Fish and Game Code Section 903.

The federal government also supports a policy of minimizing "the destruction, loss, or degradation of wetlands." Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

Riparian Communities in California

Riparian communities have a variety of functions, including providing high-quality habitat for resident and migrant wildlife, streambank stabilization, and runoff water filtration. Throughout the United States, riparian habitats have declined substantially in extent and quality compared with their historical distribution and condition. These declines have increased concerns about dependent plant and wildlife species, leading federal agencies to adopt policies to arrest further loss. USFWS mitigation policy identifies California's riparian habitats as belonging to resource Category 2, for which no net loss of existing habitat value is recommended (46 FR 7644, January 23, 1981).

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while the National Marine Fisheries Service (NMFS) has jurisdiction over anadromous fish and marine fish and mammals. Section 7 of the FESA mandates that all federal agencies consult with the USFWS and NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The FESA prohibits the "take"[2] of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

[2] Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

Section 10 of the FESA requires the issuance of an "incidental take" permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of the project, by providing for the overall preservation of the affected species through specific mitigation measures.

Pursuant to the requirements of the FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and whether the proposed action will have a potentially significant impact on such species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant in this Initial Study. The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species are those for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened. Project impacts to such species would be considered significant in this Initial Study. Similarly, the permitting responsibilities of the Corps include consultation with the USFWS and NMFS when federally listed species (i.e., listed under the FESA) are at risk. At both the state and federal levels, the process requires that a Biological Assessment (BA) be prepared to determine the effects on listed species. With both USFWS and CDFG policy, "species of special concern" are not subject to the same consultation requirements as listed endangered, rare, or threatened species, but the agencies encourage informal consultation for species of special concern that may become officially listed before completion of the CEQA process.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act states that without a permit issued by the U.S. Department of the Interior, it is unlawful to pursue, hunt, take, capture, or kill any migratory bird. The federal Migratory Bird Treaty Act (16 United States Code § 703 Supp. I, 1989) prohibits the killing, possessing, or trading migratory birds, bird parts, eggs, and nests, except in accordance with regulations prescribed by the Secretary of the Interior. Birds of prey are protected in California under California Fish and Game Code Section 3505.5. Under this section it is "unlawful to take possess, or destroy the nests or eggs of any such bird except otherwise provided by this code or any other regulation adopted hereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment and/or reproductive failure. Disturbance that causes nest abandonment or reproductive failure is considered "taking" by CDFG. Any loss of eggs, nests, or young or any activities resulting in nest abandonment would constitute a significant impact. Project impacts to these species would not be considered significant unless they are known or have high potential to nest in the project area or to rely on it for its primary foraging.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) or part thereof. The USFWS oversees enforcement of this act.

Interstate Transport of the Sudden Oak Death Pathogen

Federal regulations restricting the interstate movement of regulated and restricted articles have been established to control the movement of *Phytophthora ramorum*, the organism that causes Sudden Oak Death (SOD), from infested counties in California. Regulated articles include nursery stock and soil and may only be moved interstate from a quarantined area if accompanied by a certificate. Restricted articles include bark chips, forest stock, or mulch from certain vegetation, and any other article that an inspector determines poses a risk of spreading *Phytophthora ramorum*. Restricted articles may only be moved interstate from a quarantined area by the U.S. Department of Agriculture for experimental or scientific purposes. State and federal regulations have recently been revised so that they are nearly identical with the following exceptions: 1) federal regulations apply to interstate transport, whereas state regulations apply to intrastate transport; and 2) federal regulations limit the transport of soil, as well as plant parts and products from hosts and potential carriers.

State

CEQA Guidelines Section 15380

Although threatened and endangered species are protected by specific federal and state statues, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. These criteria have been modeled after the definition of FESA and the Section of California Fish and Game Code discussing rare or endangered plants or animals. This section was included in the guidelines primarily for situations in which a public agency is reviewing a project that may have a significant effect on a candidate species that has not yet been listed by CDFG or USFWS. CEQA provides the ability to protect species from potential project impacts until the respective agencies have the opportunity to designate the species protection.

CEQA also specifies the protection of other locally or regionally significant resources, including natural communities or habitats. Although natural communities do not presently have legal protection, CEQA requires an assessment of such communities and potential project impacts. Natural communities listed by CNDDB as sensitive are considered by CDFG to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general and area plans often identify natural communities.

State Regulation of Waters

The State Water Resources Control Board (SWRCB), through its nine Regional Water Quality Control Boards (RWQCB), regulates waters of the state through the California Clean Water Act (Porter-Cologne Act). If the Corps determines wetlands or other waters to be isolated waters and

not subject to regulation under the federal CWA, the RWQCB may choose to exert jurisdiction over these waters under the Porter Cologne Act as waters of the state.

The CDFG regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. Section 1602 of the California Fish and Game Code requires notification of the CDFG for lake or stream alteration activities. If, after notification is complete, the CDFG determines that the activity may substantially adversely affect an existing fish and wildlife resource, the CDFG has authority to issue a streambed alteration agreement under Section 1603 of the California Fish and Game Code. Requirements to protect the integrity of biological resources and water quality are often conditions of streambed alteration agreements. These may include avoidance or minimization of heavy equipment use within stream zones, limitations on work periods to avoid impacts to wildlife and fisheries resources, and measures to restore degraded sites or compensate for permanent habitat losses.

California Endangered Species Act

California implemented its own Endangered Species Act (CESA) in 1984. The state act prohibits the take of state-listed endangered and threatened species; however, habitat destruction is not included in the state's definition of take. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFG administers the act and authorizes take through California Fish and Game Code Section 2081 agreements (except for designated "fully protected species").

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act (NPPA) of 1977, which prohibits importing of rare and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants which are not regulated under the NPPA. In this case, plants listed as rare or endangered under the NPPA are not protected under CESA but can be protected under CEQA. In addition, plants that are not state-listed but meet the state standards for listing, are also protected under CEQA Guidelines Section 15380). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory (Tibor, 2001) potentially qualify for protection under CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for protection under CEQA. List 3 includes plants for which more information is needed on taxonomy or distribution. Some of these are rare and endangered enough to qualify for protection under CEQA. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the state standards for listing.

California Fish and Game Code Bird Protections

Section 3503 of the CFGC prohibits destruction of the nests or eggs of most native resident and migratory bird species. Section 3503.5 of the CFGC specifically prohibits the taking of raptors or destruction of their nests or eggs.

The legal framework and authority for the State's program to conserve plants is derived from various legislative sources, including CESA, the California Native Plant Protection Act (Fish and

Game Code Section 1900 – 1913), the CEQA Guidelines, and the Natural Communities Conservation Planning Act.

Native Plant Protection Act

California Fish and Game Code Section 1900–1913, also known as the Native Plant Protection Act is intended to preserve, protect, and enhance endangered or rare native plants in California. The act directs CDFG to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more cause. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. The act also directs the California Fish and Game Commission to adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Vascular plants listed as rare or endangered by the CNPS (Skinner and Pavlik, 1995), but which may have no designated status or protection under federal or State endangered species legislation, are defined as follows:

- List 1A: Plants Presumed Extinct.
- List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- List 3: Plants About Which More Information is Needed – A Review List.
- List 4: Plants of Limited Distribution – A Watch List.

In general, plants appearing on CNPS List 1A, 1B, or 2 are considered to meet the criteria of CEQA Guidelines Section 15380 and effects to these species are considered "significant" in this Initial Study. Additionally, plants listed on CNPS List 1A, 1B or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code.

Transport of the Sudden Oak Death Pathogen

The California Department of Food and Agriculture (CDFA) Plant Quarantine Manual, Section 3700, describes state restrictions that apply to the movement of plants, plant parts, and plant products (e.g., bark chips, mulch, firewood, and wreaths) of species that are hosts or possible carriers of the pest that causes oak mortality disease. The regulated area includes the entire counties of: Alameda, Contra Costa, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma. SOD has been found within all 13 of these counties. Plants and plant parts of hosts and possible carriers can be transported freely within and between the 13 infested counties, but cannot be transported to non-infested counties or, under

federal regulations, to non-infested states. Within Sonoma County, SOD regulations are under the jurisdiction of the County Agricultural Commissioner's office (see below).

Local

Sonoma County General Plan

The 1989 Sonoma County General Plan Open Space Element sets forth certain goals and objectives for the protection of riparian corridors. The following general plan objectives would be applicable to the Proposed Project:

- Objective OS-5c: Establish streamside conservation areas, measured from the top of the higher bank as determined by the SCWA [Sonoma County Water Agency], for designated riparian corridors as follows:

  – Urban Riparian Corridors: 50 feet
  – Russian River Riparian Corridor: 200 feet
  – Flatland Riparian Corridors: 100 feet
  – Upland Riparian Corridors: 50 feet

- Objective OS-5e: Allow or consider allowing the following uses within any streamside conservation area: …Road crossings and street crossings, utility line crossings…

- Objective OS-5f: Prohibit, except as allowed by OS-5e, structures, roads and utility lines and parking lots within any streamside conservation area. Consider waiver of this prohibition if:

  – it makes a lot unbuildable and vegetation removal is minimized;
  – no significant disturbance of riparian habitat would occur; or
  – the use involves only the maintenance, restoration or minor expansion of an existing structure. (Sonoma County PRMD, 1989)

Sonoma County Zoning Ordinance

The Sonoma County Ordinance provides a Valley Oak Habitat (VOH) Combining District, which provides for the protection and enhancement of valley oaks and valley oak woodlands. Under the Zoning Ordinance, large valley oak trees with a diameter at breast height (dbh) greater than 20 inches or smaller valley oak trees that have a cumulative dbh greater than 60 inches cannot be removed unless appropriate mitigation measures are implemented. These measures include retaining large oaks on protected lands, planting replacement valley oaks, and paying compensation.

The zoning ordinance further provides a Biotic Resource combining zone to protect biological resources including critical habitats and riparian corridors.

Sonoma County Code

The Sonoma County Code (Chapter 26D) contains the Sonoma County Heritage or Landmark Tree Ordinance. The Tree Ordinance seeks to protect trees that qualify for heritage or landmark status, which can be conferred by the Sonoma County Board of Supervisors to nominated trees, with landowner approval. "Heritage tree" means "a tree or a group of trees with historical interest or significance." "Landmark tree" means "a tree or a group of trees with outstanding characteristics in terms of size, age, rarity, shape, or location." Heritage and landmark trees can be removed or damaged only under certain limited conditions, for example, if the tree is dead or diseased. A permit must be obtained to remove or damage a heritage or landmark tree. A number of exemptions apply, including "any utility company licensed by the California Public Utilities Commission is exempt from the requirement of obtaining a permit so that they or their agents may maintain the required clearance around power lines" (Sonoma County, 1986).

Sonoma County Agricultural Commissioner's Office

The Sonoma County Agricultural Commissioner's office provides protection to the county by regulatory control through quarantines to prevent the introduction of pests that are not known to exist or are of very limited distribution in the county. Plant material is inspected at the Post Office, United Parcel Service centers, Federal Express centers and the bus depot. Shipments sent to nurseries, landscape planting sites, parks, and grain mills are also inspected for pests. To facilitate the shipment of agricultural products out of Sonoma County, phytosanitary certificates are issued for agricultural commodities, which have been inspected for pests and diseases and verified to meet the plant quarantine requirements of the receiving county, state, or country. The Agricultural Commissioner's office also regulates SOD. Sonoma County is generally infested with the disease, and it is primarily found in the native woodland and rural areas within the county. The Agricultural Commissioner's office is responsible for helping to prevent the artificial movement of the disease out of the regulated area. Anyone moving host plant material outside of the regulated area must contact our office to have the plants inspected and certified prior to shipment. The Agricultural Commissioner's also assists in the assessment of oak trees, which are removed under the California State Department of Forestry's Hazardous Tree Removal Program.

City of Sonoma Tree Ordinance

The City of Sonoma protects trees through a Tree Ordinance (City of Sonoma, Municipal Code, Chapter 12.08). This ordinance prohibits actions such as pruning, trimming, relocating, removing, or killing any tree on public property without a permit from the director of public works. Applications for new developments that propose to remove trees must be reviewed by the Planning Commission, the Architectural Review Commission and the Tree Committee. A tree inventory is required, and replacement is required for any trees that are removed. No permit is required to trim branches or roots that are interfering with public utility lines.

2.4.3 Biological Resources Impacts and Mitigation Measures

As part of PG&E's standard construction practice, the following measures will be incorporated into the project and will be implemented to avoid or minimize impacts to biological resources:

- An ongoing environmental education program for construction crews will be conducted before beginning the site work and during construction activities. Sessions will include information about the Federal and State Endangered Species Acts, the consequences of noncompliance with these acts, identification of special-status species and wetland habitats (including waterways), and review of mitigation requirements.

- Vehicles will be restricted to established roadways and identified access routes.

- An Environmental Monitor or Specialist will be on site during any construction activity near sensitive habitat to ensure implementation of, and compliance with, mitigation measures. The monitor will have the authority to stop activities and determine alternative work practices in consultation with construction personnel, if construction activities are likely to impact special-status species or other sensitive biological resources.

- If special-status species are located prior to or during work activities, construction personnel will contact the environmental monitor. If the monitor determines that project activities may adversely affect the species, the monitor will consult with USFWS, NOAA Fisheries, and/or CDFG regarding appropriate avoidance and mitigation measures.

- Photo documentation of preconstruction habitat conditions will occur at all construction locations within sensitive habitat prior to the start of work, as well as immediately after construction activities.

- Trash, dumping, firearms, open fires, hunting, and pets will be prohibited in the project area.

Additional measures to avoid, minimize, and mitigate specific potential impacts to biological resources are described below under the corresponding potential impact.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service: *less than significant with mitigation incorporation.* See discussion under d).

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites: *less than significant with mitigation incorporation.*

Substations

Vegetation at the Lakeville Substation consists of non-native weedy grasses and forbs characteristic of ruderal areas with no potential for the occurrence of special-status plants. Expansion of the Sonoma Substation would occur within the paved area inside the

existing substation fence. No habitat for special-status wildlife species exists at either of these sites. No significant impacts to vegetation, special-status plants or wildlife would occur from modifications to the Lakeville and Sonoma Substations.

Transmission Line

Mitigation for impacts to special-status plant and animal species would be implemented at various project construction sites to reduce the potential for "take" of listed or otherwise special-status species. In some cases, preconstruction surveys to determine presence or absence of biological resources within the project area and avoidance of these resources would avoid significant impacts to plants and animals. However, due to the extent of the project, specific project components would impact areas where the presence of special-status species is presumed based on occurrence of suitable habitat, CNDDB occurrence, or biological resource assessment surveys indicates presence.

CNDDB lists 12 special status plant species with known occurrences in the vicinity of the project. Of these 12 species, 5 have at least moderate potential to occur within the project area. Special-status plants with at least moderate potential to occur within the project are:

- Cotula naverretia
- Lobb's aquatic buttercup
- Contra Costa goldfields
- Sonoma sunshine.
- Dwarf downingia

CNDDB lists 13wildlife species (including invertebrates) that have known occurrences in the vicinity of the project area. Of these, eight have at least moderate potential to occur along the transmission line and in project construction areas. Special-status animal species with at least moderate potential to occur within the project area include:

- California freshwater shrimp
- California red-legged frog
- Foothill yellow-legged frog
- Western pond turtle
- Golden eagle
- White tailed kite
- California horned lark
- Pallid bat.

Impact 2.4-1: Construction activities associated with pole removal and installation and equipment access could result in temporary or permanent impacts to special-status plants located within the vicinity of the transmission line alignment. This would be a less than significant impact with implementation of Mitigation Measures 2.4-1a and 2.4-1b.

Two known occurrences of special-status plants could be adversely affected by proposed construction activities. These include Lobb's aquatic buttercup and *cotula navarretia*. Direct and indirect impacts to Lobb's aquatic buttercup and its wetland habitat could result from replacement of Poles 43 and 44, and construction of a new permanent road segment and improvement of an existing road to access these poles. The proposed pole installation and road footprints would avoid the vernal pool habitat of Lobb's aquatic buttercup, but ground disturbance and other activities adjacent to the pool could affect

this species' habitat conditions, for example, by reducing water quality in the pool as a result of sedimentation or fuel spills.

Direct and indirect impacts to *cotula navarretia* and its habitat are unlikely but possible from activities associated with the removal of Poles 58 and 59, and construction of a new permanent access road. The proposed route of the new permanent access road from the vicinity of Pole 60 to the vicinity of Pole 57 has been rerouted to the ridge north of the small valley to avoid direct impacts to *cotula navarretia*. At the west end of the ridge, a cut would be required on the steep slope below the ridge to connect the new road segment to the existing ranch road. Erosion from the cut could affect potential habitat for *cotula navarretia* on the lower slope, although this is unlikely. No direct impacts are expected based on the plant's distribution in June 2004.

Protocol-level surveys conducted by GANDA did not report occurrence of other special-status plants in the project area. Impacts to species other than Lobb's aquatic buttercup and *cotula navaerrteia* are not anticipated.

Implementation of Measures 2.4-1a and 2.4-1b would reduce impacts to special status plants to less than significant.

> **Mitigation Measure 2.4-1a:** PG&E shall contract with a Specialist[3] to conduct preconstruction surveys for special status plants. Preconstruction surveys shall occur during the appropriate blooming period immediately prior to the start of construction activities at Poles 43 and 44 and Poles 58 and 59. The Specialist shall establish an appropriate protection zone around known populations of Lobb's aquatic buttercup and *cotula navarretia* and any new populations of special-status plants observed during preconstruction surveys. The protection zone shall be staked and flagged in the field prior to construction by a qualified botanist. To the extent feasible, poles or other project components shall not be placed in areas where these plant populations have been identified. If avoidance of special-status plants is not feasible, PG&E shall contract with a Specialist to harvest plant seeds and top-soil for post-construction restoration or replanting in an appropriate location. PG&E shall prepare a Special Status Plant Species Protection Plan that shall incorporate the following measures which shall be implemented during all phases of construction in areas marked in the field with temporary fencing.
>
> - Restrict construction activities to the dry season (June 1 to October 15), or, if this is not feasible, implement appropriate erosion and sediment control measures to prevent water quality and indirect habitat impacts to these species.
>
> - During construction activities near areas of known special-status plant occurrences, daily monitoring shall occur using a qualified Environmental Monitor to ensure protection zones and water quality measures are being implemented at construction sites. If direct or indirect impacts to special-

[3] Specialist is defined as a botanist, biologist qualified to handle special status species, paleontologist or other monitor with specialized qualifications.

status plant species are observed then the monitoring biologist shall notify the construction manager immediately. Examples of impacts may include, but are not limited to damage to exclusionary fencing or water or sediment from construction areas entering exclusion zone. The Environmental Monitor shall report any direct or indirect impacts resulting from construction activities in daily monitoring report.

- Keep construction vehicles on designated access roads only. Do not fuel or repair construction vehicles within the vicinity of special status plants.

Mitigation Measure 2.4-1b: Project construction shall avoid known habitat for Lobb's aquatic buttercup to the extent feasible. To the extent feasible, major earthmoving activities in the vicinity of Poles 43 and 44 shall occur during the dry season (June 1 to October 15), or, if this is not feasible, the appropriate erosion and sediment control measures to prevent water quality degradation as described in the SWPPP Plan.

To the extent feasible, poles and other project components shall not be placed in known habitat for Lobb's aquatic buttercup. If habitat for this species cannot be avoided, Mitigation Measure 2.4-7f shall be implemented to compensate for the direct loss of vernal pool habitat.

Significance after Mitigation: Less than significant.

Impact 2.4-2: Construction of the transmission line could result in temporary and permanent impacts to California red-legged frog breeding and associated upland habitat. This would be a less than significant impact with implementation of Mitigation Measures 2.4-2.

Potential aquatic habitat for California red-legged frog occurs within Felder Creek and in stock ponds in surrounding agricultural lands. Potential associated upland habitat used for aestivation and dispersal is located along the upland areas adjacent to Felder Creek and uplands adjacent to the stock ponds. Construction activities have the potential to result in direct and indirect impacts to this species. Indirect impacts include sedimentation, removal of aquatic habitat, removal or disturbance of riparian vegetation and harassment due to increased human presence and construction equipment. Direct impacts could include mortality and incidental "take" of individual frogs dispersing into uplands.

Temporary loss of associated upland habitat for California red-legged frog would occur with the construction of temporary access roads at Pole 36, 40, and 41. These access roads are within 700 feet of potential aquatic breeding habitat for California red-legged frog.

Permanent loss of associated upland habitat would occur with the construction of permanent access roads located approximately between Poles 50 and 53, Poles 55 and 57 and 57 and 60. These access roads are located within 700 feet of known aquatic habitat for California red-legged frog.

Mitigation Measure 2.4-2: PG&E shall implement measures to minimize and avoid "take" of California red-legged frog. These measures include complying with the federal Endangered Species Act and implementation of measures that would substantially reduce the risk of incidental "take" of CRLF within the project area. Prior to and during construction, PG&E shall perform the following actions to minimize adverse effects to California red-legged frog:

- To the extent feasible, earthmoving activities in the vicinity of Felder Creek shall be conducted during the dry season (June 1-October 1).

- PG&E shall contract with a Specialist and submit the name and credentials of this individual to act as construction monitor(s) to USFWS for approval at least 15 days prior to commencement of any construction activities.

- Immediately prior to activities in the vicinity of Felder Creek, the USFWS-approved Specialist shall perform a preconstruction survey for California red-legged frog. The survey area should consist of all proposed wet season work sites within one mile of Felder Creek and should include all suitable aquatic and upland habitats within 90 m (300 ft) of these proposed work sites.

- Preconstruction surveys during the dry season shall consist of all suitable aquatic habitat in Felder Creek and upland habitat within 300 feet of proposed construction activities.

- If CRLF are found within a work area prior to construction, the Specialist, with prior authorization from the USFWS, would relocate the frogs out of the project area in coordination with USFWS. A temporary silt-fence barrier would be installed around the work area to prevent CRLF from re-entering the work area. If a California red-legged frog is found nearby but outside a proposed work area, it should not be disturbed and USFWS shall be contacted.

- During wet season construction, temporary construction fencing should be installed to mark the limits of the affected work area(s) and to limit construction personnel and equipment to the designated work area. The location of the fencing should be determined by the Environmental Monitor in coordination with the construction supervisor. In addition, as recommended by the Specialist, a temporary drift fence (e.g. silt-fence) barrier should be installed to prevent California red-legged frogs from entering those work area(s) during project activities.

- A USFWS-approved Specialist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and its habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the any construction activities may occur. The biologist should provide maps of potential CRLF habitat to construction personnel.

- Following construction, remove all trash and construction debris from work areas. All trash and construction debris shall be properly contained.

- Ensure that all fueling and maintenance of vehicles and other equipment and staging areas occurs at least 20 meters from any riparian habitat or water body. PG&E shall ensure contamination of habitat does not occur during such operations. Prior to the start of construction, PG&E shall prepare a plan to ensure a prompt and effective response to any accidental spills.

Significance after Mitigation: Less than significant.

Impact 2.4-3: Project construction activities, such as tree removal and trimming, grading of temporary work areas, improvement of access roads, operation of heavy equipment, installation and removal of poles, and conductor installation, could disturb nesting birds, including raptors. Tree removal or trimming could disrupt nesting behavior or destroy active nests if they occur. Use of helicopters to remove and install poles and transmission line and to move equipment to and from remote areas could also impact nesting birds and raptors. Use of helicopters in nesting areas could cause adult and juvenile birds to flush and abandon the nest. This would be a less than significant impact with implementation of Mitigation Measures 2.4-3a (preconstruction surveys), 2.4-3b (measures to avoid nesting bird habitat), and 2.4-3c (measure to restrict helicopter use near nesting raptor habitat).

The use of helicopters to remove and install poles and to span the new transmission line within densely vegetated areas has the potential to cause nesting birds to flush from their nests, resulting in loss of eggs or nest abandonment. If a helicopter is used for any phase of construction during the nesting season, helicopter operation, especially takeoff and landing, could also disturb nesting birds if they occur in the landing area. Nesting birds and raptors are protected under the Federal Migratory Bird Treaty Act and the California Fish and Game Code.

Potential impacts to nesting birds resulting from project activities include flushing of nesting birds causing abandonment of the nest and nest and reproductive failure. Mortality to juvenile or naïve birds or raptors could result from flushing from nest prior to fledging or, abandonment by parents.

Mitigation Measure 2.4-3a: To the extent feasible, project activities shall not occur during the nesting and breeding season (from March 1 through August 15) to avoid impacts to nesting birds and raptors. If seasonal avoidance is not feasible, then Mitigation Measures 2.4-3b through 2.4-3d shall be implemented to avoid impacts to nesting birds and raptors.

Mitigation Measure 2.4-3b: Prior to any potential nest-disturbing activities during the period from March 1 through August 15, PG&E shall contract with an Environmental Monitor who shall conduct a pre-construction survey for nesting birds. The survey shall be conducted no more than one week prior to the start of work activities and would cover all affected areas including the transmission line

route, staging areas, pull sites, and access road improvement areas where substantial ground disturbance or vegetation clearing is required.

- Additional pre-construction surveys shall be conducted for each new phase of project implementation that occurs during the nesting season, no more than two weeks prior to construction (e.g., prior to road improvement and pole installation, and again prior to conductor installation).

- If any active nests are found, an appropriate nest protection zone shall be established by the Environmental Monitor. These guidelines for protection zones shall be used: For passerine birds, a 50 - 100-foot protection zone shall be established around active nests; For raptors, a 300-foot protection zone and for golden eagles a 500 foot protection zone shall be established around active nests. These protection zones may be modified on a site-specific basis as determined by the Environmental Monitor or in coordination with CDFG.

- Active nests within the project area would be monitored for signs of disturbance. If the biological monitor determines that a disturbance is occurring, construction shall be halted, and the agencies shall be contacted as to the measures that shall be implemented.

Mitigation Measure 2.4-3c: Use of helicopters shall be restricted to necessary trips to install and remove poles, install the transmission line, and to deliver and remove equipment to areas lacking vehicular access or in areas where access would cause severe erosion. Helicopters may be used in an area if active raptor nests occur if an appropriate buffer has been established in coordination with CDFG. In active nesting areas, helicopters may be used after young have fledged, as determined by a qualified biologist in coordination with CDFG.

Significance after Mitigation: Less than significant.

Operation of the new transmission line could pose a collision or electrocution risk to birds, particularly larger species such as raptors. While there is potential for birds to collide with the new transmission line, the risk is relatively low and is not expected to be appreciably greater than with the existing line. There are no major bird migration routes in the project area, and the placement and configuration of the line are not substantially different from the existing line. A double-circuit line is proposed to replace the existing single-circuit line, which would increase the number and cross-sectional area of conductors intersecting potential bird flight paths. However, the new line would have higher ground clearance and would likely have greater visibility than the existing line, which would tend to reduce collision risks. Overall, these effects are expected to offset each other and result in no additional risk of collision to birds.

The extended wings of large birds could potentially span the distance between energized phase conductors or from energized components to grounded objects such as transmission line poles or other second points of contact. To prevent electrocutions due to wing contact with two phases, the Avian Power Line Interaction Committee (APLIC) recommends that a minimum of 60 inches of separation be maintained between conductor

phases (APLIC, 1996). The project's design would provide 120 inches of conductor phase separation where Gull cross arms are used and 102 inches where post insulators are used. This substantially exceeds the APLIC recommendation and should eliminate the possibility of electrocutions from this cause. In addition, distribution protection measures such as perch deterrents and line covers would be implemented where there is distribution under-build on the new poles.

Overall, implementation of these measures for the new double-circuit line is expected to result in fewer bird electrocutions than the existing single-circuit Lakeville-Sonoma 115 kV line. The reduced risk of electrocution would be a beneficial impact of the project and would result in no additional impacts to birds and raptors.

Maintenance activities such as vegetation trimming and line repairs could affect nesting birds if these activities occur during the nesting season. PG&E operating standards specify that, unless an active nest presents an immediate safety or operating hazard, it shall be left undisturbed. For situations where an active nest presents an immediate hazard, before disturbing this nest, the PG&E Bird Protection Program Manager or Terrestrial Biology Supervisor would be contacted to obtain necessary permission from the USFWS Migratory Bird Permit Office. If nest removal or relocation is necessary before permission can be obtained, appropriate action would be taken to correct the safety or operating hazard and the PG&E Bird Protection Program Manager or Terrestrial Biology Supervisor would be notified within 72 hours. Implementation of these measures would reduce this impact to a less than significant level. No further mitigation is required.

Impact 2.4-4: Project construction activities adjacent to Sonoma Creek could have short-term effects on aquatic habitat of the California freshwater shrimp. Construction activities could result in water quality impacts within Sonoma Creek. This would be a less than significant impact with implementation of Mitigation Measure 2.4-4.

Removal and installation of new poles at pole locations 107 and 108 along Sonoma Creek could result in indirect impacts to freshwater shrimp if they are present within the project area. Installation of a new pole at Pole 107 would involve operation of equipment, ground disturbance, and clearing of vegetation within the riparian zone to accommodate the pole footprint, work area, and access route.

> **Mitigation Measure 2.4-4:** Certain construction activities at Pole 107 shall be conducted during the dry season (June 1 through October 1) to avoid impacts to California freshwater shrimp. Installation of the Pole 107 foundation and construction/improvement of the access road to Pole 107 shall be done during the dry season to avoid sediment or other debris discharge into Sonoma Creek. Installation of TSPs on top of foundations, wire and wood pole removal shall be done outside of the dry season using BMPs.

Significance after Mitigation: Less than significant.

Impact 2.4-5: Pond turtle habitat occurs throughout the project alignment in detention basins and stock ponds located on agricultural areas and in freshwater streams including Rodgers Creek and Felder Creek. Construction activities in the vicinity of streams or ponds occupied by Western pond turtle could harm individual turtles or temporarily affect their habitat. This would be a less than significant impact with implementation of Mitigation Measure 2.4-5.

Pond turtles were observed in two ponds near Segment 1, and could also be present in Rodgers Creek and other perennial water bodies in the project area. The occupied ponds are more than 1,000 feet from the transmission line route and would not be affected by project activities. Potential temporary impacts to pond turtle habitat would occur at Poles 26 and 27, Rodgers Creek at Poles 43 and 44, and at Felder Creek at Poles 54 and 55. Impacts to turtles could occur with the installation of temporary access roads. Indirect impacts include sedimentation and erosion of turtle aquatic habitat. Direct impacts could occur with mortality of individual turtles, if they occur within the project area; individual turtles could be crushed by construction equipment.

> **Mitigation Measure 2.4-5:** Prior to the start of construction activities, PG&E shall contract with a Specialist who shall perform pond turtle surveys within Rodgers Creek, Felder Creek, Sonoma Creek, Fryer Creek and in other ponded areas within 700 feet of the project features where ground-disturbing activities would occur. If no turtles are found during surveys, search for turtle nests is then not necessary. If turtles are found in aquatic habitat, then clearance of the nearby terrestrial habitat that would be impacted shall occur prior to construction activities; the biologist(s) shall look for eggs and WPT individuals including over-wintering hatchlings. If eggs are found, the biological monitor shall contact CDFG for the appropriate measures to relocate the eggs.
>
> Measures outlined in the SWPPP Plan shall be implemented to avoid impacts to pond turtle aquatic habitat.

Significance after Mitigation: Less than significant.

Impact 2.4-6: Project construction activities at or adjacent to the Leveroni Road Bridge over Sonoma Creek in Segment 17 could disturb common or special-status bat species, including pallid bat if they are present during construction. This would be a less than significant impact.

The Leveroni Bridge provides suitable habitat for nesting and roosting bats and there is at least moderate potential for special-status bats to occur at this location. Evidence of both common and special status bats was found at the Leveroni Bridge during an October 2005 survey. Evidence included small amounts of guano. No bats were seen during this survey (GANDA, 2005).

Impacts to bats include noise and vibration associated with construction work which could disturb and possibly displace nesting and roosting bats. This potential disturbance would be temporary and is not expected to cause direct harm to individual bats, because no work would be done on the bridge itself and there would be relatively little disturbance of the riparian habitat of Sonoma Creek. The distance between Poles 107 and 108 is of sufficient distance to avoid any impacts to bats on the bridge.

Mitigation: None required.

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b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service: *less than significant impact with mitigation incorporation*. See discussion under c).

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means: *less than significant impact with mitigation incorporation.*

Substations

There are no aquatic or riparian habitats at the Lakeville or Sonoma Substations. Vegetation communities at these facilities consist of non-native weedy grasses and forbs characteristic of ruderal areas. No impacts to riparian areas or potentially jurisdictional waters of the U.S., including wetlands subject to regulation under Section 404 of the federal CWA would occur at these facilities.

Transmission Line

The transmission line alignment crosses, spans, or parallels riparian area and potentially jurisdictional waters of the U.S., including wetlands. Impacts to riparian areas and potentially jurisdictional features would occur during the removal and installation of poles, construction of permanent and temporary access roads, clearing of vegetation, and installation of the new transmission line.

Impact 2.4-7: Construction of the Proposed Project could result in impacts to potentially jurisdictional wetlands or waters of the U.S. under the jurisdiction of the Corps and waters of the state under the jurisdiction of the SWRCB or RWQCB. The Proposed Project could also result in impacts to the streambed and banks under jurisdiction of CDFG. Potential impacts include sedimentation of channels downstream of the construction areas during trenching and excavating activities and loss of riparian and instream wetland vegetation. Permanent impacts to jurisdictional features would not be greater than 1/2 acre qualifying the project to be authorized under a Section 404 Nationwide Permit (NWP). This would be a less than significant impact with implementation of Mitigation Measures 2.4-7a through 2.4-7d.

Portions of the project area support wetlands and other waters of the U.S. under regulatory jurisdiction of the USACOE, RWQCB, and CDFG. Disturbances would occur within drainages, wetlands, and creek channels where facility construction requires excavation or installation or improvement of new access roads. Permanent disturbance to creeks could occur with the installation of new culverts or stream crossings. This disturbance would affect both areas classified as wetland and channels that are considered "other waters of the U.S.".

Construction activities within the vicinity of Poles 43 and 44 have the potential to result in temporary impacts to the vernal pool feature. Potential impacts to this feature could include sedimentation and erosion from the removal of existing Poles 43 and 44 and the installation of new poles within the existing pole footprints. Other direct impacts could result from the movement of construction vehicles within the area. Indirect impacts could also include water quality impacts from construction vehicles such as fuel or oil leaks should they occur. Installation and maintenance of these poles requires a vegetation clearance of approximately 640 square feet and could result in permanent impacts to jurisdictional features found within this area.

Project activities adjacent to Felder and Sonoma Creeks could adversely affect these aquatic habitats in the project area. Pole replacement and conductor installation adjacent to Felder Creek (Poles 75 to 87) could affect the creek bank or result in sedimentation. Similarly, replacement of Pole 107 adjacent to Sonoma Creek and construction of a new access road to this pole could result in erosion and sediment transport to the creek. Water quality could also be affected by discharge of oil, gas or other chemical pollutants into these watercourses from vehicles and equipment. Proposed road crossings of four minor drainages could directly affect creek beds or banks that may be subject to Corps, SWRCB, and/or CDFG jurisdiction.

Construction within waters of the U.S., including wetlands would require permits and/or agreements from the Corps, RWQCB, and CDFG. Permit and agreement conditions may require compensatory mitigation for temporary and permanent impacts to jurisdictional features. Failure to obtain permits and agreements would result in violation of the state and federal Clean Water Acts and California Fish and Game Code 1600-1616.

> **Mitigation Measure 2.4-7a:** In order to determine the extent of jurisdictional features within the project area, PG&E shall conduct a wetland delineation and submit it to the Corps prior to the start of construction. Potentially jurisdictional features have only been preliminarily identified. To remain in compliance with state and federal CWA, a determination of jurisdictional features shall be made. A wetland delineation, identifying and mapping potentially jurisdictional features subject to CWA Section 404 and 401 jurisdiction shall be completed. The wetland delineation map and report shall be submitted to the Corps for field verification of jurisdiction. The wetland delineation report and Corps verified map shall be submitted to RWQCB and CDFG, and other appropriate regulatory agencies.

Mitigation Measure 2.4-7b: To the extent feasible, final project design shall avoid impacts to wetlands and other waters. State and federal regulations specify that wetland avoidance is required to the extent feasible. Areas that are avoided shall be subject to Best Management Practices (BMPs). These Best Management Practices (BMPs), or. storm water protection methods are standard in the construction industry and are proven effective to reduce water quality degradation. PG&E shall implement specific erosion control and surface water protection methods for each construction activity conducted as part of the project. As discussed in the Regulatory Context of Section 2.8, Hydrology and Water Quality, the project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) Construction Activities Permit and therefore, be required to employ specific BMPs for the protection of surface water. PG&E is required to provide details as to the design and monitoring of the BMPs in the Stormwater Pollution Prevention Plan (SWPPP). Examples of standard BMPs, which PG&E would implement as part of the SWPPP and the typical application of those BMPs are as follows:

- Site grading operations necessary to develop temporary staging areas and pull and tension sites would be required to use appropriately-placed silt fencing to protect surface water sources from entrainment of sediment. Surfaces of these staging areas would be graveled during wet weather use to minimize erosion and sediment laden runoff. To restore vegetation at disturbed temporary staging areas, measures and monitoring specified in the SWPPP Plan shall be implemented to achieve the performance standards indicated in the Plan.

- Silt fencing is proposed as part of the project and is standard BMP to control erosion and siltation from loose or disturbed soil. Silt fencing would be placed as appropriate at each pole installation site, especially those adjacent to natural surface water bodies. Stockpiled soil generated from the excavation of pier foundations or boreholes would not be left at the site. Loose soil would be loaded and used elsewhere or stockpiled in staging areas. Soil stockpiled at the staging area would be managed as required in the SWPPP and be appropriately covered, vegetated, or bermed during rainy periods to ensure that eroded sediments do not runoff to surface water resources.

- As part of the Proposed Project, access roads would be in- or out-sloped, as appropriate, providing effective surface sheet flow to avoid formation of erosive gullies caused by concentrated runoff. Where necessary, flow diversions, known as water bars, would be used on roadways exceeding gradients of 10 degrees. Water bars divert runoff from roads before gullies can form. Where necessary, all-weather roads would be covered with gravel base material. The gravel base would reduce the erosive energy to reduce erosion.

- NPDES requires that the SWPPP show BMPs for control of discharges from waste handling and disposal areas and methods of on-site storage and disposal of construction materials and waste. The SWPPP must also describe the BMPs designed to minimize or eliminate the exposure of storm water to

construction materials, equipment, vehicles, waste storage or service areas. The SWPPP would require PG&E to identify equipment storage, cleaning and maintenance areas.

Mitigation Measure 2.4-7c: To the extent practicable, ground-disturbing activities such as access road construction, site grading, and foundation installation shall be conducted during the dry season (June 1 through October 1). The dry season window may begin as early as May 1 if ground conditions at the work sites and access routes are determined to be sufficiently dry by an Environmental Monitor.

Mitigation Measure 2.4-7d: Wetlands and other waters, including vernal pools, shall be avoided during construction activities to the extent feasible. Installation of exclusionary fencing and other appropriate methods shall be installed at specific locations described below.

- For the vernal pools between Poles 43 and 44, an Environmental Monitor shall establish a protection zone of the maximum practicable distance, not less than 50 or greater than 100 feet, from the wetland edge. The exclusion zone shall be staked and flagged or delineated with temporary fencing. For work at Pole 107 and its access road near Sonoma Creek, temporary exclusion fencing and silt fencing shall be installed at the downslope edge of the work footprint and not less than 25 feet from the top of the bank of Sonoma Creek. Staking and flagging or fencing shall be completed prior to any construction activities and shall remain in place during all construction activities.

- For the vernal marsh near Poles 40 and 41, silt fencing shall be installed between the access road and the marsh as close as practicable to the edge of the road improvements footprint to prevent sedimentation impacts to the marsh (see Mitigation Measure 2.4-7b).

- PG&E shall contract with an Environmental Monitor to monitor protected areas during all work activities in the vicinity of wetlands and sensitive aquatic and riparian habitats including Sonoma Creek, Felder Creek, and other watercourses that may be affected by the project. The Environmental Monitor shall verify that environmental fencing, erosion and sediment control measures, and other protection measures are properly installed and are effective. If problems are found, the Environmental Monitor shall recommend remedial measures. The monitor shall have the authority to stop activities that are likely to adversely affect sensitive aquatic habitats and recommend alternative work practices in consultation with construction personnel.

Mitigation Measure 2.4-7e: Prior to the start of construction, for any jurisdictional features identified as a result of implementing Mitigation Measure 2.4-7a, PG&E shall obtain necessary regulatory permits. Construction activities within jurisdictional features including wetlands and vernal pools would require permit approval from the Corps and RWQCB for fill in wetlands and other Waters of the U.S. pursuant to Section 404 of the federal Clean Water Act. Water quality

certification from RWQCB would also be required pursuant to Section 401 of the federal CWA. In addition, the CDFG has jurisdiction pursuant to Section 1601-1616 of the Fish and Game Code for construction activities affecting, or within the channels or banks of (or under) Sonoma, Rodgers, Fryer and Felder Creeks which would require Streambed Alteration Agreements. Terms and conditions of the permits would include measures to protect and maintain water quality, restore work sites, and mitigate for permanent and temporary impacts.

Mitigation Measure 2.4-7f: Measures to prevent erosion and sedimentation and to restore work areas where vegetation would be removed or where bare soil is exposed shall be applied to project elements as specified in the SWPPP Plan.

Significance after Mitigation: Less than significant.

Impacts to wetlands would result from operation and maintenance of the transmission line if maintenance vehicles leave the established access roads and drive through streams, vernal pools or other wetlands. The Proposed Project includes the installation of new access roads and improvement of existing roads. Maintenance vehicles are required to remain on roads for safety of maintenance personnel and to eliminate impacts to wetlands.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance: *less than significant with mitigation incorporation*. (see discussion under f).

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan: *no impact*.

Protected trees, which include heritage trees, or other locally important trees occur throughout the project alignment.

Impact 2.4-8: Trees considered significant by local municipalities could be damaged during project construction activities. This would be a less than significant impact.

An unknown number of protected trees would likely be trimmed to install new poles in areas where the transmission line would pass through dense oak woodland in Segment 1 (e.g., near Poles 34, 36, 37, 38, and 39). All drainages with riparian forest would be spanned, eliminating the need for tree removal, but some trees might be trimmed to protect the transmission lines and to reduce fire danger. Tree trimming also would likely be required along some access roads and at some staging areas (e.g., near Poles 34 and 35) and at a few pull sites.

The valley oaks located at Sonoma Creek would not be removed during construction, although some trimming of branches or limbs may be required. County-protected heritage and landmark trees would be avoided during construction.

Mitigation: None Required.

Operation and maintenance of the transmission line requires vegetation trimming and clearing in the vicinity of transmission lines and transmission poles during fire season. Clearing around wood poles would not affect special-status species populations or wetlands as long as maintenance crews avoid these areas. Tree trimming may affect some trees in riparian corridors. Tree ordinances of the County and City of Sonoma provide exemptions for tree trimming that is necessary to maintain public utilities. These exemptions apply to tree trimming required during operation and maintenance of the proposed project. No mitigation is required.

Impact 2.4-9: Construction activities could potentially spread noxious or invasive weeds into the project area and within the project area where weeds do no currently exist. New noxious or invasive weed species could also be transported into the project area if seeds or plant material is carried on vehicles and construction equipment.

This would be a less than significant impact with implementation of Mitigation Measure 2.4-9a and 2.4-9b.

New weed populations could become established in sites disturbed during construction, especially along roads, in staging areas, and other temporary use areas, and in locations where poles would be removed and replaced.

Invasive plant removal has been implemented within the transmission line alignment between approximately Poles 32 and 39. Construction vehicles used in areas that contain exotic plants have the potential to re-introduce invasive plants to this area.

Numerous non-native invasive plants are found within the proposed transmission line alignment, including: yellow starthistle (*Centaurea solstitialis*), purple starthistle (*Centaurea calcitrapa*), Harding grass (*Phalaris aquatica*), milk thistle (*Silybum marianum*), bull thistle (*Cirsium vulgare*), medusahead (*Taeniatherum caput-medusae*), and Italian thistle (*Carduus pycnocephalus*), wild fennel (*Foeniculum vulgare*), and thickets of Himalayan blackberry occur and have the potential to spread. At the Sonoma Creek crossing site in Segment 17, stands of giant reed (*Arundo donax*) and wild fennel grow on the creekbanks, but would not likely be spread by project activities.

> **Mitigation Measure 2.4-9a:** To reduce the likelihood of spreading noxious or invasive weeds within the project area or increasing their abundance in the project area, or introducing new noxious or invasive weed species to the project area,

PG&E shall prepare and submit a Vegetation Management & Restoration Plan which includes best management practices for control of noxious weeds.

Mitigation Measure 2.4-9b: To reduce the potential for the spread of invasive or noxious weeds, cleaning stations shall be set up at key points along access roads. Mud and debris shall be scraped, brushed, or hosed from vehicles. A power washer shall be used where feasible. Cleaning of personnel shall include removal of mud and debris from boots and clothing.

Significance after Mitigation: Less than Significant.

Impact 2.4-10: The project could result in the spread of the Sudden Oak Death pathogen. This would be a less than significant impact with implementation of Mitigation Measure 2.4-10a through 2.4-10 f.

Sudden Oak Death (SOD) is a forest disease caused by the plant pathogen *Phytophthora ramorum*. Known susceptible plants include tanoak, coast live oak, Shreve's oak, California black oak, canyon live oak, and sometimes madrone. These trees are infected through the trunk of the tree (except for tanoak which can also be infected through the leaves) and are known as bole hosts.

The pathogen that causes SOD also causes a foliar/twig disease in other susceptible plants. While it is not uncommon for plants that contract Sudden Oak Death to succumb to disease, it is uncommon for foliar/twig host plants to die from infection. Many foliar hosts act as a breeding ground for the disease, allowing inoculum to build up on leaves, and then spread to new areas via natural or artificial means.

The SOD fungus may be transported to new areas when infected plant material or infected soil is moved. The pathogen resides in soil in infested areas and therefore soil is a potential carrier of the pathogen. The risk of pathogen spread is greatest in muddy areas and during rainy weather where spore producing hosts are present. Currently, soil movement is unregulated. Most common plants may be carriers of the pathogen including California bay laurel (*Umbellularia californica*), a common species found throughout the Sonoma Mountain area.

Trees affected by the Sudden Oak Death pathogen have been found 1.5 miles north of the project area (California Oak Mortality Task Force, 2004), and in many locations in Sonoma County. During field surveys for the project, trees were observed near Pole 42 that appeared to be affected by the Sudden Oak Death pathogen (GANDA, 2004d). In addition, many individuals of host and potential carrier species (coast live oak, black oak, California bay, bigleaf maple, madrone, California buckeye, and common manzanita) grow within the project area, and it is possible that some of these are infested without showing signs of the disease. The potential for a significant impact exists if infested plants are removed or trimmed during construction and the parts are transported to a non-infested county or state. Leaving materials on-site (without burning them), or moving

them only within the 13-county[4] infested area, are actions that do not violate state or federal regulations, and would not constitute significant impacts. However, moving plant material within Sonoma County would be inconsistent with the Sonoma County Agricultural Commissioner's request for voluntary assistance in combating the spread of the Sudden Oak Death pathogen within Sonoma County (see *Regulatory Context* section, page 2.4-24). While implementation of Mitigation Measure 2.4-10a is consistent with the Sonoma County Agricultural Commissioner's request; implementation of Mitigation Measures 2.4-10b through 2.4-10e would further reduce the likelihood of spreading the SOD pathogen.

Mitigation Measure 2.4-10a: To reduce the potential for the spread of the Sudden Oak Death pathogen, PG&E shall comply with applicable regulations during the construction activities including vegetation trimming, clearing, and removal and by following the practices documented as part of the Vegetation Management & Restoration Plan which shall include the following mitigation measures to reduce the potential for spread of the SOD pathogen.

Mitigation Measure 2.4-10b: To reduce the potential for the spread of SOD, Mitigation Measure 2.4-9b shall be implemented. Cleaning stations shall be set up at key points along access roads easily accessible for job site personnel and vehicles. Mud and debris shall be scraped, brushed, or hosed from vehicles. A power washer shall be used where feasible. Cleaning of personnel shall include removal of mud and debris from boots and clothing.

Mitigation Measure 2.4-10c: No plant material shall be removed from the project area to the extent feasible. Any branches, limbs, twigs, or other tree debris shall be left onsite. Any plant material trimmed or removed along Leveroni Road shall be removed and disposed of at an appropriate location[5].

Mitigation Measure 2.4-10d: Work in the project area shall be performed during the dry season (May through October) to the extent feasible. If work is performed during the wet season vehicles and personnel shall, to the extent feasible, be kept to paved areas and avoid mud.

Mitigation Measure 2.4-10e: PG&E shall institute a sanitation program to be approved by the CPUC including the implementation of Mitigation Measure 2.4-10b. Sanitation measures include decontamination of vehicles, personnel, tools and equipment. Mud and debris shall be scraped, brushed, or hosed from vehicles and equipment. A power washer shall be used where feasible. Sanitation of personnel shall include removal of mud and debris from boots clothing, and skin. Sanitation of tools that have contacted vegetation or soils shall be performed after completion of work to using Lysol® spray, a 70% or greater solution of alcohol, or a Clorox® solution (1 part Clorox® to 9 parts water or Clorox clean up®). At the cleaning stations, a person trained by a qualified biologist, botanist or arborist experienced with SOD shall inspect each worker's clothing, especially the shoes. Any

[4] Alameda, Contra Costa, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma.
[5] In accordance with applicable regulations.

branches, limbs, twigs, seeds, or other tree debris shall be removed from worker's clothing. The inspection shall occur daily after work has been completed.

Mitigation Measure 2.4-10f: Prior to the start of construction, PG&E shall provide a worker education seminar to all personnel. The seminar shall include distribution of materials that help identify signs of SOD, description of sanitation procedures, and other measures to avoid the spread of the pathogen. The seminar shall be facilitated by a qualified biologist, botanist or arborist or other qualified person experienced with SOD. Any workers who join the construction job after the initial worker education seminar shall be trained by the Environmental Monitor on all topics covered in the seminar.

Significance after Mitigation: Less than significant.

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